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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,548	10/23/2003	Peter Johannes Marie Baets	215545.01602	7955

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EXAMINER

LILLING, HERBERT J

ART UNIT	PAPER NUMBER
1651	

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,548	Applicant(s) BAETS ET AL.	
	Examiner HERBERT J. LILLING	Art Unit 1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 15-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 15-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>July 27, 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Receipt is acknowledged of the election response filed June 30, 2006.

2. Applicant has elected with traverse Invention I, claims 1-14.

Claims 15-20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 30, 2006.

The restriction is proper as stated. The search and examination of the additional claims would be extremely burdensome in view of the different searches and computerized searches that require different strategies.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 and 10-14 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sterzel et al U.S. 5,453,365 (claims 1-7 and 10-14) and Claims 1 and 9 are rejected over Hughes et al WO 9858-072 teaches on page 21 and in Example 15, the flocculation by a polymeric flocculant

Art Unit: 1651

Sterzel et al teaches in column 2, lines 20-25 the separation of fermentation liquor (broth) by the addition of an alkali to the solution having a pH in the range of 7-13 whereby the fermentation takes place at a temperature range from 37-60 deg C, see col 3, lines 2-3. The residence times for controlling the fermentation reaction comprising lactic acid is 2-20 hours, see column 3, lines 9-11 whereby ammonia is added to adjust the pH 7-13, see column 3, lines 16-18. The addition of carbon dioxide (flocculant) forms precipitation of ammonium lactate, which is separated from the fermentation liquor (broth), see column 5, lines 25-50.

Hughes et al WO 9858-072 teaches on page 21 and in Example 15, the flocculation by a polymeric flocculant for the separation of lactic acid. The additional sodium bentonite and/or polymeric flocculant are considered to be the alkalifying step, which meets the claimed language absent a showing to the contrary.

Or

Claims 1-7 and 10-14 are rejected under 35 U.S.C. 103(a) as obvious over Sterzel et al U.S. 5,453,365.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1651

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Sterzel teaches the following process steps, which renders the claims prima facie obvious absent unexpected or unobvious process steps:

Claim 2-see column 3; line 18 whereby the pH is preferred to be above 9 at 9.5;

Claim 3-see column 3, line 18 whereby the pH ranges to a pH 13;

Claim 4, see column 3, line 3, temperature is 37-60 deg C within the claimed range and column 3, residence time from 2-20 hours within the range up to 1000 hours.

Claim 5, see above which includes 20 hours, which is above claimed "above 8 hours".

Claim 6-residence time in column 3, which includes 2 hours within the range of the claimed range of "1 second and 4 hours".

Claim 7, it would have been prima facie obvious to one of ordinary skill in the art to add the alkali within the time range absent unexpected or unobvious process steps or results.

Claim 10-Sterzel teaches the stirring of the fermentation liquor, see column 5, line 11 and line 31 whereby the reference states that "Over a period of 40 min there are added to the liquor with vigorous stirring..." which is within the scope of the claim 10.

Claims 11-14-Sterzel et al reference within the scope of the claimed inventions.

Art Unit: 1651


4. The references do not anticipate claim 8. In addition, the references alone or further in view of each do not suggest or motivate one of ordinary skilled in the art to employ an alkalifying step followed by the claimed flocculant selected from claim 8.

5. **No claim is allowed.**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Examiner Lilling whose telephone number is 571-272-0918 and Fax Number is (703) 872-9306** or SPE Michael Wityshyn whose telephone number is 571-272-0926. Examiner can be reached Monday-Thursday from about 5:30 A.M. to about 3:00 P.M. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **<http://portal.uspto.gov/external/portal/pair>**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H.J.Lilling: HJL
(571) 272-0918
Art Unit **1651**
July 25, 2006



Dr. Herbert J. Lilling
Primary Examiner
Group 1600 Art Unit 1651.